

## REMARKS

Further and favorable reconsideration is respectfully requested in view of the foregoing amendment and following remarks.

Initially, Applicants note that although the Office Action Summary page indicates that claims 1-11 and 23-29 are pending, the pending claims also include claim 16 (which the Examiner has objected to as dependent on a rejected claim).

Claim 1 has been amended to limit the polymer substrate to a water-insoluble polymer substrate. The basis for this limitation is found on page 19, lines 1-17, page 40, lines 13-22 and the Examples in the specification.

Attached hereto is a marked-up version of the changes made to claim 1 by the current amendment. The attached page is captioned "Version with markings to show changes made."

The patentability of the present invention over the disclosures of the references relied upon by the Examiner in rejecting the claims will be apparent upon consideration of the following remarks.

The biologically active compound moiety in the polymer product of the present invention exerts its biological activity while the moiety is covalently bonded to the polymer substrate. Thus, the product of the present invention can typically be used in treating a gaseous or liquid fluid. The product does not liberate the biologically active compound during use. Please refer to lines 1-12 on page 40 of the specification.

The rejection of claims 1-2, 10, 11, and 27 under 35 U.S.C. § 102 (b) as being anticipated by JP 3-17025 is respectfully traversed.

This reference, which is cited in the Applicant's earlier Information Disclosure Statement, based on the International Search Report, discloses a sustained release agent for an active component composed of an ester of an oxyalkylene derivative and an active component. The agent is soluble in water as well as organic solvents.

On the other hand, as apparent from amended claim 1 set forth above, the biologically active polymer product of the present invention has a water-insoluble polymer substrate. In addition, as noted above, this product does not release the biologically active moiety, but maintains the covalent bond between the water-insoluble polymer substrate and the biologically active moiety.

Accordingly, the chemical and physical properties of the product of the present invention are quite different from those of the product of the reference.

It is therefore apparent that the subject matter of the present invention is clearly patentable over the JP '025 reference.

The rejection of claims 1-3, 5-6, 9-11, 23, 25 and 27 under 35 U.S.C. §102(b) as being anticipated by JP 3-287545 is respectfully traversed.

This reference is also cited in the Applicants' earlier Information Disclosure Statement. A partial translation of the reference is submitted herewith for the Examiner's consideration.

The JP '545 reference discloses a polymeric drug compound which is soluble in water. Applicants understand that the polymeric drug compound is soluble in water and is intended to be administered or applied to a human body.

In contrast, the product of the present invention is insoluble in water and is intended to be used for the treatment of liquid or gaseous fluids in biologically active form, wherein the active moiety is covalently bonded to the water-insoluble polymer substrate. That is, the product of the present invention is not intended to be administered to a human.

For these reasons, Applicants take the position that the present invention is clearly patentable over the JP '545 reference.

The objection to the remaining claims as being dependent on a rejected claim is considered to have been overcome in view of the foregoing remarks.

Therefore, Applicants take the position that each of the grounds of objection and rejection set forth by the Examiner has been overcome, and that the application is in condition for allowance. Such allowance is solicited.

Respectfully submitted,

Yasuo FUKAGAWA et al.

By: Michael R. Davis  
Michael R. Davis  
Registration No. 25,134  
Attorney for Applicants

MRD/aeH  
Washington, D.C. 20006-1021  
Telephone (202) 721-8200  
Facsimile (202) 721-8250  
July 30, 2001

THE COMMISSIONER IS AUTHORIZED  
TO CHARGE ANY DEFICIENCY IN THE  
FEES FOR THIS PAPER TO DEPOSIT  
ACCOUNT NO. 23-0975

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

1. (Amended) A biologically active polymer product having:

a water-insoluble polymer substrate; and

a biologically active compound moiety having a low molecular weight, the portion being covalently bonded to the polymer substrate and exerting selective biological activity,

wherein the biologically active compound moiety exerts the selective biological activity while being covalently bonded to the polymer substrate.